

REMARKS

Claims 1-62 are pending in the current application. In the office action dated 12/20/2000, drawings were objected to because items 204 and 206 in FIG. 1 were not labeled. Claims 1-24, 28-42, 53-57 and 62 were rejected under 35 U.S.C. §102(b); claims 25-27, 43, 48-52 and 58 were rejected under 35 U.S.C. §103(a); and claims 44-47 and 59-61 were allowed. An Amendment After Final was submitted on February 20, 2001, but not entered.

In the current preliminary amendment, Applicants added new claims 63 – 124. Applicants submit that the claims do not constitute a new matter because the claims are supported by the specification.

Applicants further amend the specification, and present additional arguments for support of the contention that the term “signature” is not limited to the term “sequence number.”

In the previous amendment, Applicants submitted corrected drawings per the Examiner's invitation. Applicants assert that the corrections are of formal matter because support for the corrections is found in the original specification; consequently, the corrections do not constitute new matter. Because all of the stated grounds for objection have been properly accommodated, the Examiner is respectfully requested to withdraw the objections.

Applicants amend the specification. Applicants assert that the amendment corrects a misprint, and, as such, constitutes a formal matter; consequently, the correction does not constitute new matter.

Applicants amend claim 1 to more accurately claim the invention. Applicants respectfully traverse the rejections presented by the Examiner.

Objection to Drawings

The drawings were objected to because items 204 and 206 in FIG. 1 were not labeled. Applicants accept the Examiners invitation to mark the item 204 as "MT" and the item 206 as "TE". Applicants submitted corrected drawings reflecting these changes on February 20, 2001. Applicants submit a copy of the Request for Drawing Amendment previously filed on February 20, 2001. Applicants assert that the corrections are of formal matter because all corrections are contained in the original specification; consequently, the corrections do not constitute new matter.

Because all of the stated grounds for objection have been properly accommodated, the Examiner is respectfully requested to withdraw the objections.

Amendment to Specification

Applicants assert that the amendment to specification corrects a misprint made in the original specification. In the "Description of the Related Art" section, Applicants described use of *sequence numbers* in overhead messages to conserve power at a mobile station in communication systems with centralized control. (Application, p. 3, line 25-p. 4, line 31). Applicants then discussed difference in overhead messaging in a communication systems accessing decentralized network, and concluded, that means different from the sequence numbers are needed in the communication systems accessing decentralized network to achieve power and bandwidth saving. (Application, p. 5 line 1-p. 6, line 3).

A concept of a *signature* as the means for achieving the power and bandwidth savings in the communication systems accessing decentralized network was introduced in the "Summary of Invention" section. (Application, p. 7, lines 1-22). This concept is then explained in the "Detailed Description of Preferred Embodiment" section. Applicants note that the use of the term signature is consistent throughout the specifications as applied to the communication systems accessing decentralized network.

Furthermore, the sentences using the term "sequence number" are not consistent with the specification. The sentence on p. 13, line 27 – p. 14, line 1 reads as follows:

"Since it is not desirable to have the mobile unit wake up, receive the overhead message, and decode it only to determine that the overhead message is the same as the previous message that was decoded earlier, in the interest of conserving battery power, a sequence number is transmitted along with the overhead message."

The sentence is contained in a description of FIG. 2. However, no sequence number is illustrated in FIG. 2. On the contrary, a signature is clearly illustrated in FIG. 2.

The sentence on p. 14, lines 4-7 reads as follows:

"In many instances, the mobile unit will go back to sleep after receiving the signature because the signature is the same as the sequence number received the last time the mobile unit woke up."

The sentence implies that the signature is equivalent to a sequence number. However, the application explains that the signature is not necessarily equivalent to a sequence number. (P. 14, lines 18-20.)

Consequently, the amendment corrected misprint; therefore, no new matter was introduced.

Claim Rejection under 35 U.S.C. § 102(b)

Claims 1-24, 28-42, 53-57, and 62 stand rejected under 35 U.S.C. §102(b) as being anticipated by Tiedemann, Jr. et al. (U.S. Patent 5,392,287).

In regards to claims 1, 2, 14, and 57 the office action contends that Tiedemann, Jr. et al., in column 8, lines 54-64, teaches each and every element of Applicant's claimed invention. Applicants respectfully disagree.

Applicants explained in the specification that in accordance with one embodiment of the present invention, a signature capsule *separate* from a respective overhead message capsule is provided on the forward link. (Application, Fig. 2, p. 12, line 23-p. 13, line 19). Consequently, the mobile unit wakes up, "receives the signature of the overhead message which will be *received later* and decides whether to stay awake and receive the overhead message." (Application, p. 1, lines 2-4). Therefore, there is no need to *decode* or even to *receive* the overhead message. In contrast, Tiedemann, Jr. et al. discloses an overhead message structure *containing within* a sequence number. (Tiedemann, Jr. et al., Fig. 5a, col. 9, lines 1-4.) Consequently, the message must be *received* and *decoded* for the sequence number to be provided. (Tiedemann, Jr. et al., col. 7, lines 1-12, lines 46-65.)

Applicants explained in the specification that in accordance with other embodiment of the present invention, a respective signature *separate* from a respective overhead message is provided. (Application, Fig. 4, p. 15, line 26-p. 16, line 24). As discussed, Tiedemann, Jr. et al. fails to disclose such feature.

Applicants amended claim 1 to more accurately claim features of the present invention.

Therefore, because Tiedemann, Jr. et al. fails to teach each and every element of Applicant claim 1, the Examiner is respectfully requested to withdraw the rejection.

With respect to claims 3-13, 15-24, 28-42, and 53-56, and 62, Applicants note that the claims are dependent from claim 1 and/or any intervening claims. Because, as discussed, claim 1 and any intervening claims are in condition for allowance, it follows that claims 3-13, 15-24, 28-42, and 53-56, and 62 are also in condition for allowance, and the Examiner is respectfully requested to withdraw the rejection.

Claim Rejection under 35 U.S.C. § 103(a)

Claims 25-27, 43, 48-52 and 58 stand rejected under 35 U.S.C. §103(a) as being anticipated by Tiedemann, Jr. et al.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the reference must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, *not in Applicant's disclosure*.

In regards to claims 25-27 the office action admits that Tiedemann, Jr. et al. fails to disclose listening for a first second and third respective messages, but contends that it would be obvious to one of ordinary skills to modify Tiedemann, Jr. et al. "to listen to a respective message having a respective sequence number (signature) that does not match a corresponding sequence number (signature) previously stored and, therefore, saving battery power since only a different message not previously received would be decoded." Applicants respectfully disagree.

First, as discussed, Tiedemann, Jr. et al. fails to teach each and every element of Applicants' claim 1. Consequently, even if Tiedemann, Jr. et al. could be modified, the modification would still failed to teach Applicants claims 25-27 because these claims depend from claim 1.

Second, there is no reasonable expectation of success. Assume, *arguendo*, that the signature of Applicant's invention is an equivalent to the sequence number of Tiedemann, Jr. et al. The sequence number is *in* the message (Tiedemann, Jr. et al., col. 8, lines 49-57). Therefore, the message must be *received* and *decoded* to ascertain the sequence number. Consequently, no power savings can be accomplished as the office action contends.

For the above reasons obviousness *prima facie* has not been established, and the Examiner is respectfully requested to withdraw the rejection.

In regards to claims 43, 48, 49 and 58, the office action admits that Tiedemann, Jr. et al. fails to disclose the use of hash function for providing signatures, but contends that it would be obvious to one of ordinary skills to modify Tiedemann, Jr. et al. do so. Applicants respectfully disagree.

First, as discussed, Tiedemann, Jr. et al. fails to teach each and every element of Applicant claim 1. Consequently, even if Tiedemann, Jr. et al. could be modified, the modification would still failed to teach Applicants claims 43, 48, 49 and 58 because these claims depend from claim 1.

Furthermore, even assuming, *arguendo*, that the signature of Applicant's invention is an equivalent to the sequence number of Tiedemann, Jr. et al., there is no suggestion or motivation in Tiedemann, Jr. et al. for use of a hashing function for providing sequence numbers. Tiedemann, Jr. et al. specifically discusses the use of hashing function to pseudorandomly *assign slot numbers* to but fails to even mention why the use of hashing function should be applied to *assignment of sequence numbers*. Consequently, the office action used impermissible hindsight reconstruction to arrive at elements of Applicant's claims.

For the above reasons obviousness *prima facie* has not been established, and the Examiner is respectfully requested to withdraw the rejection.

In regards to claims 50-52, the office action admits that Tiedemann, Jr. et al. fails to disclose the use of a counter for providing signatures, but takes Official Notice that it is well known in the art to use counters when assigning sequence numbers to a sequence of messages. Applicants respectfully disagree.

First, as discussed, Tiedemann, Jr. et al. fails to teach each and every element of Applicant claim 1. Consequently, even if Tiedemann, Jr. et al. could be modified, the modification would still failed to teach Applicants claims 51-53 because these claims depend from claim 1.

For the above reasons obviousness *prima facie* has not been established, and the Examiner is respectfully requested to withdraw the rejection.

Allowable Subject Matter:

The office action objected to claims 44-47 and 59-61 as being dependent on rejected base claims. Applicants gratefully acknowledge the Examiner's indication that they would be allowed if re-written in an independent form.


However, Applicants believe that the arguments presented in this amendment render all the base claims allowable. Consequently, claims 44-47 and 59-61 should be also allowed as written. Applicants, however, reserve the option of re-writing them in an independent form in the course of prosecution.

CONCLUSION

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Respectfully submitted,

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APPENDIX A

The overhead message or messages are typically received and processed by a mobile unit when a mobile unit is not engaged in a call or attempting to engage in a call, (i.e., when it is in an 'idle state'). The term idle state is somewhat of a misnomer because the mobile unit can be very busy in the idle state. During the idle state, the mobile station periodically wakes up and listens to the paging channel and processes the messages on that channel. The overhead messages may remain the same for a substantial period of time during which the mobile station periodically wakes up and listens to the paging channel. Since it is not desirable to have the mobile unit wake up, receive the overhead message, and decode it only to determine that the overhead message is the same as the previous message that was decoded earlier, in the interest of conserving battery power, a [sequence number] signature is transmitted along with the overhead message. When the mobile unit wakes up, it receives the signature of the overhead message which will be received later and decides whether to stay awake and receive the overhead message. In many instances, the mobile unit will go back to sleep after receiving the signature because the signature is the same as the [sequence number] signature received the last time the mobile unit woke up. Since listening for overhead messages requires a certain amount of power and since the listening function is performed frequently (as often as once per second), limiting the amount of time a mobile unit performs the listening function reduces the overall power consumption of that mobile unit and therefore increases the life of any battery or other power storage system utilized by that mobile unit. Significant power savings may occur because in many instances the overhead messages may remain the same for a substantial period of time.

APPENDIX B

1. (Amended) A method for communicating messages to a mobile station
- 2 by a wireless communication system providing access to a decentralized data network, the method comprising the steps of:
- 4 providing a sequence of messages;
- providing for each respective message a respective signature, the
- 6 respective signature being separate from the respective message; and
- comparing the respective signature for any given respective message with
- 8 at least one signature.